

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A computer program product, tangibly embodied in a computer-readable storage medium, comprising instructions operable on a client computer to:

provide on a client computer a user interface for a computer program application, the user interface being operable to receive input from a user interacting with the client and from the input to generate user interaction events;

identify on the client one or more ~~possible~~ future user interaction events that may occur while the user interface is in a current user interface state, ~~the possible user interaction events being user interaction events that would arise from an input the user interface could possibly receive from the user in the current user interface state;~~

~~determine an estimated~~ estimate a likelihood for the future possible user interaction events to occur based on a history of previous user inputs to the user interface;

select one or more of the future possible user interaction events to pre-process based on the estimated likelihoods ~~[[for]]~~ that the future possible user interaction events will occur;

pre-process the selected future possible user interaction events to generate one or more future possible user interface states and future user interface appearances

~~corresponding to the generated future user interface states; store the one or more possible user interface states for later use; pre-render one or more of the possible user interface states to generate one or more possible user interface appearances while the user interface is in the current user interface state; and~~

store the generated one or more possible user interface appearances for later use.

2. (Currently Amended) The product of claim 1, further comprising instructions to:

receive an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, render the future user interface appearance corresponding to the first user interface state ~~possible user interface states corresponds to a user interaction event that arises from the actual input from the user, make the corresponding one of the possible user interface states the current user interface state.~~

3. (Cancelled)

4. (Currently Amended) The product of claim ~~[[1]]~~ 2, further comprising wherein the instructions to ~~pre-render one or more of the possible user interface states~~ comprise instructions to generate code to render the first corresponding user interface state states.

5. (Currently Amended) The product of claim 4 wherein the code to render the corresponding first user interface state states comprises HTML (Hypertext Markup Language) code.

6. (Canceled)

7. (Currently Amended) The product of claim 1, further comprising instructions to:

specify an order for pre-processing the future possible user interaction events based on the estimated likelihoods that the future user interaction events will occur.

8. (Canceled)

9. (Currently Amended) The product of claim 1, wherein:
the user interface comprises a control having instructions to establish the estimated likelihoods for the future possible user interaction events.

10. (Cancelled)

11. (Currently Amended) The product of claim 1, wherein:
the instructions to pre-process ~~one or more of the possible~~ the selected future user interaction events to generate one or more future possible user interface states

comprise instructions to obtain data from the application for future possible user interface states.

12. (Currently Amended) The product of claim 1, wherein each of the selected future possible user interaction events has estimated likelihoods of occurrence exceeding a threshold probability, and the possible future user interaction events other than the selected future possible user interaction events have estimated likelihoods that do not exceed the threshold probability.

13. (Currently Amended) The product of claim 1, wherein:
the computer program product application is a program running on a server computer in data communication with the client computer; and
the instructions to provide a user interface on the client computer comprise instructions to provide the user interface in a Web browser.

14. (Currently Amended) A computer implemented method, comprising the steps implemented by one or more computers of:

providing on the client computer a user interface for a computer program application, the user interface being operable to receive input from a user interacting with the client and from the input to generate user interaction events;

identifying on the client one or more possible future user interaction events that may occur while the user interface is in a current user interface state, ~~the possible user~~

~~interaction events being user interaction events that would arise from an input the user interface could possibly receive from the user in the current user interface state;~~

~~determining an estimated estimating a likelihood for the future possible user interaction events to occur based on a history of previous user inputs to the user interface;~~

~~selecting one or more of the future possible user interaction events to pre-process based on the estimated likelihoods ~~[[for]]~~ that the future possible user interaction events will occur;~~

~~pre-processing the selected future possible user interaction events to generate one or more future possible user interface states and future user interface appearances corresponding to the generated future user interface states; storing the one or more possible user interface states for later use; pre-rendering one or more of the possible user interface states to generate one or more possible user interface appearances while the user interface is in the current user interface state; and~~

~~storing the generated one or more possible user interface appearances for later use.~~

15. (Currently Amended) The method of claim 14, further comprising:

~~receiving an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, render the future user interface appearance corresponding to the first user interface state possible user interface states corresponds to a user interaction event that arises from the actual input from the user,~~

~~make the corresponding one of the possible user interface states the current user interface state.~~

16. (Cancelled)

17. (Currently Amended) The method of claim 14, further comprising:

specifying an order for pre-processing the future possible user interaction events based on the estimated likelihoods that the future user interaction events will occur.

18. (Currently Amended) An apparatus, comprising:

means for implementing a user interface for a computer program application, the user interface being operable to receive input from a user interacting with the client and from the input to generate user interaction events;

means for identifying one or more possible future user interaction events that may occur while the user interface is in a current user interface state, ~~the possible user interaction events being user interaction events that would arise from an input the user interface could possibly receive from the user in the current user interface state;~~

means for ~~determining an estimated~~ estimating a likelihood for the future possible user interaction events to occur based on a history of previous user inputs to the user interface

means for selecting one or more of the future possible user interaction events to pre-process based on the estimated likelihoods ~~[[for]]~~ that the future possible user interaction events will occur;

means for pre-processing the selected future possible user interaction events to generate one or more future possible user interface states and future user interface appearances corresponding to the generated future user interface states; ~~means for storing the one or more possible user interface states for later use; means for pre-rendering one or more of the possible user interface states to generate one or more possible user interface appearances while the user interface is in the current user interface state;~~

means for storing the generated one or more possible user interface appearances for later use; and

a processor for implementing at least the means for pre-processing.

19. (Currently Amended) The apparatus of claim 18, further comprising:

means for receiving an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, render the future user interface appearance corresponding to the first user interface state ~~possible user interface states corresponds to a user interaction event that arises from the actual input from the user,~~ make the corresponding one of the possible user interface states the current user interface state.

20. (Cancelled)
21. (Currently Amended) The apparatus of claim [[18]] 19, further comprising:
means for specifying an order for pre-processing the future possible user
interaction events based on the estimated likelihoods that the future user interaction
events will occur.
22. (Currently Amended) The product of claim 12, further comprising
instructions for raising or lowering the threshold probability.